



TITLE:

Preface/ ICR News 2003

AUTHOR(S):

CITATION:

Preface/ ICR News 2003. ICR Annual Report 2004, 10

ISSUE DATE:

2004-03

URL:

<http://hdl.handle.net/2433/65415>

RIGHT:

ICR ANNUAL REPORT

2003

Volume 10

Institute for Chemical Research
Kyoto University

ICR ANNUAL REPORT 2003 (Volume 10) - ISSN 1342-0321 -

For the calendar year 1 January 2003 to 31 December 2003

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Published and distributed by:

Institute for Chemical Research (*ICR*), Kyoto University

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ICR Annual Report Committee, Institute for Chemical Research, Kyoto University

Note: *ICR* Annual Report available from the *ICR* Office,
Institute for Chemical Research, Kyoto University,
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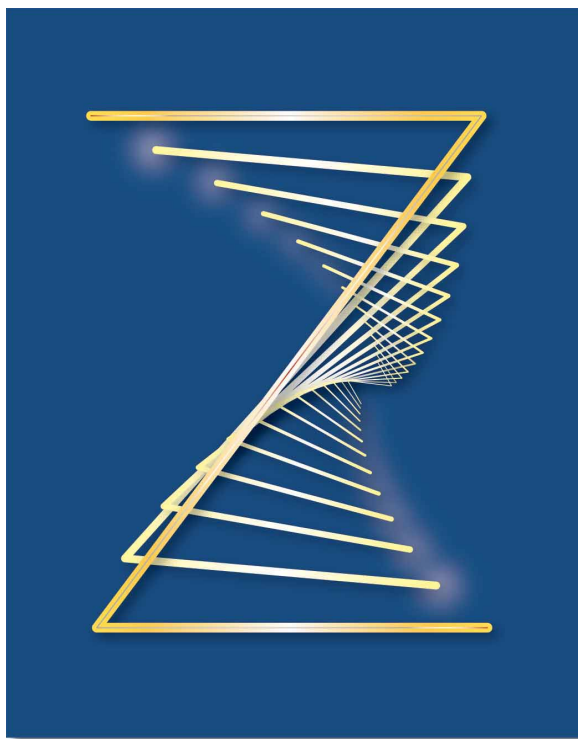
Printed by

Nakanishi Printing Co., Ltd.

Ogawa Higashi-iru, Shimodachiuri, Kamigyo-ku, Kyoto 602-8048, Japan.

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ICR ANNUAL REPORT 2003



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Preface



It is a great pleasure for us to publish the ICR Annual Report for 2003.

In April 2003 a new research center named “International Research Center for Elements Science” has started. This center consists of four laboratories and two guest laboratories and covers the fields of organic synthesis, inorganic synthesis, coordination chemistry, and photoquantum nanochemistry.

We have appointed seven new full professors, Professor UMEMURA Junzo for the Laboratory of Solutions and Interfaces (appointed in June), Professor SHIMAKAWA Yuichi for the Laboratory of Advanced Inorganic Synthesis (October), Professor UMEDA Masato for the Laboratory of Biopolymer Structure (February), Professor OZAWA Fumiyuki for the Laboratory of Organotransition Metal Chemistry (September), Professor SAKABE Shuji for the Laboratory of Beams and Fundamental Reaction (April), Professor MATSUKI Seishi for the same laboratory (June), and Professor KANEMITSU Yoshihiko for the Laboratory of Photonic Elements Science (January 1, 2004).

Thus ICR has been expanded to a system of 9 divisions and 3 affiliated research centers in April 2003, consisting of 31 laboratories and 6 guest-laboratories. At the present time, 29 full professors, 23 associate professors, 40 instructors, 5 guest professors, and 6 guest associate professors work in the ICR, and about 210 graduate students and approximately 40 foreign researchers study at the ICR.

A new Kyoto University 21st Century COE Program entitled “Knowledge Information Infrastructure for Genome Science” was initiated as a joint venture between the Bioinformatics Center of the ICR and the School of Pharmaceutical Sciences. The program lead by Prof. KANEHISA of our Institute aims at establishing the knowledge information infrastructure for the 21st century genome science, both in terms of the computerized resource and the human resource. A

new education/training program is being introduced, integrating traditional bioinformatics with physics and chemistry and with medical and pharmaceutical sciences.

Another Kyoto University 21st Century COE Program named “Center for Diversity and Universality in Physics” started in July. In this program Department of Physics and Department of Astronomy of Graduate School of Science, Yukawa Institute for Theoretical Physics, Kwasan and Hida Observatories, International Innovation Center, and the ICR are involved. Intended through this program is the establishment of an outstanding activity center for research and education on fundamental physics and astrophysics, covering elementary particles and nuclei, atoms and molecules, macroscopic systems including life, celestial objects, and the largest system: the universe.

The organization of national universities must and will be significantly changed by transformation into independent administrative corporations in April of 2004. With this goal in mind, we understand that we must work together in order to keep and strengthen the vitality of our Institute, while overcoming the inevitable turning points and changes which lie ahead. To be successful, we must provide strong support and leadership in all areas of our research activities for the development of science and technology. For this purpose, we will continue to devote our efforts to fundamental research and its application in specific fields which are important to our future well being, health and prosperity.

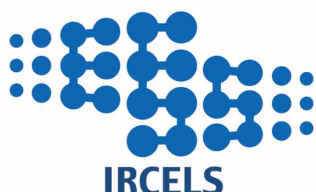
January 2004

A handwritten signature in black ink that reads "Mikio Takano".

Mikio Takano
Director

ICR News 2003

The Establishment of “International Research Center for Elements Science”



■ Director of IRCELS: Prof TAMAO, Kohei

The “International Research Center for Elements Science” (IRCELS) as our new attached research center has started its activity from April 1, 2003.

On January 9, 2004, our Institute celebrated the opening of this new center IRCELS by performing the commemorative ceremony at the seminar hall, in the presence of Professor Kazuo Oike, President of Kyoto University, Mr. Yoshiyuki Satoh, Deputy Director (Research Institutes Cooperation) of the Research Promotion Bureau of Ministry of Education, Culture, Sports, Science and Technology (MEXT: Monbukagaku-sho), and Professor Mitsuhiko Araki, Dean of the Graduate School of Engineering, who delivered the congratulatory addresses. Our Director, Professor Mikio Takano, gave the opening and thanking remarks. Finally, Tamao, Director of IRCELS, introduced the organization and staff of the new Center.

President Oike said, “In the tripartite structure of three campuses of Kyoto University, the Uji Campus is regarded as the basis for advanced science and technology research. The development of advanced science of Uji Campus, where the top-class research institutes and centers of natural sciences are clustered, is considered as one of the most important issues.”



The opening ceremony was held as the morning session of the 3rd International Symposium of Kyoto COE Project “Elements Science”. In the Commemoration Session, three Plenary lectures were given by the distinguished guests, Prof. Koji Kaya, Director of Institute for Molecular Science, and two foreign guests.

■ http://www.kuicr.kyoto-u.ac.jp/IRCELS/index_e.html

A New 21st Century COE Program “Center of Research and Knowledge Information Infrastructure for Genome Science”



Kyoto University
21st Century COE Program
Genome Science

■ Project Leader: Prof KANEHISA, Minoru
(Director of Bioinformatics Center)

A grand challenge in the genome science of the 21st century is to computationally predict systemic functional behaviors of the cell, the organism, and the biosphere from genomic and molecular information, especially for the purpose of medical, industrial, and other practical applications. This will require new bioinformatics, not simply for screening large-scale data, but rather for reconstructing the system and computing its interactions with the environment.

The 21st Century COE program “Genome Science”, a joint venture between the Bioinformatics Center of the Institute for Chemical Research and the School of Pharmaceutical Sciences in Kyoto University, aims at establishing the knowledge information infrastructure for the 21st century genome science, both in terms of the computerized resource and the human resource. A new education/training program is being introduced, integrating traditional bioinformatics with physics and chemistry and with medical and pharmaceutical sciences.



A symposium celebrating the inauguration of the 21st Century COE program was held at the Sakagura VIL (Venture-business Incubation Laboratory) on August 8, 2003.

This COE program was adopted on July 21, 2003.

■ <http://www.bic.kyoto-u.ac.jp/COE/>

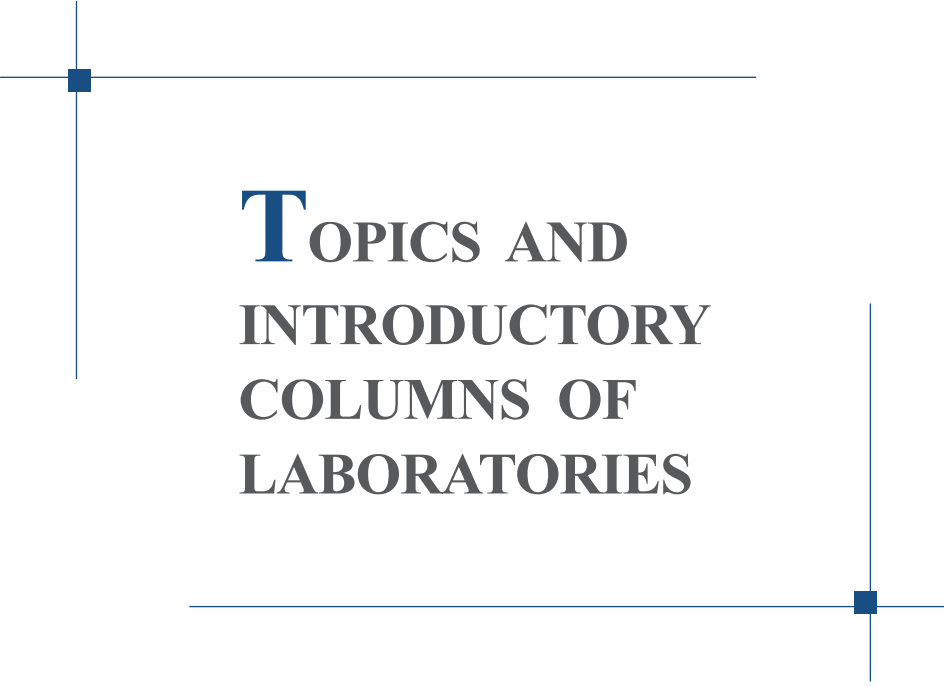
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Abbreviations used in the columns

Prof Em	Professor Emeritus	Res	Researcher
Prof	Professor	A Res	Assistant Researcher
Vis Prof	Visiting Professor	RF	Research Fellow
Assoc Prof	Associate Professor	RS	Research Student
Vis Assoc Prof	Visiting Associate Professor	GS	Graduate Student
Lect	Lecturer	DC	Doctoral Course (Program)
Lect(pt)	Lecturer (part-time)	MC	Master's Course (Program)
Instr	Instructor	UG	Undergraduate Student
Vis Instr	Visiting Instructor	D Sc	Doctor of Science
Assoc Instr	Associate Instructor	D Eng	Doctor of Engineering
Techn	Technician	D Agr	Doctor of Agricultural Science
Guest Scholar	Guest Scholar	D Pharm Sc	Doctor of Pharmaceutical Science
Guest Res Assoc	Guest Research Associate	D Med Sc	Doctor of Medical Science
PD	Post-Doctoral Research Fellow	Ph D	Doctor of Philosophy



TOPICS AND INTRODUCTORY COLUMNS OF LABORATORIES

Key to headline in the columns

RESEARCH DIVISION
- Laboratory (Subdivision)* -

* See also "ORGANIZATION AND STAFF"
on pages 114 and 115.